

**APPLICATION FOR A UNITED STATES PATENT**  
**UNITED STATES PATENT AND TRADEMARK OFFICE**

Title: Low Mount Seat Belt Guide Loop.

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## **FIELD OF INVENTION**

This invention relates to seatbelt restraint systems. More specifically, it relates to a low mount seat guide loop for use with seatbelt restraint systems.

## **BACKGROUND OF INVENTION**

5       Seatbelt restraint systems are required in new motor vehicles so as to help protect a vehicle occupant in case of collision. Today, there are demands on current seatbelt technology to improve seatbelt restraint systems to make them easier and more comfortable for users. Many improvements have been in the form of seat guide loops. These seat guide loops help to position the seatbelt across an occupant and many guide  
10      loops have special features to enhance occupant safety. See U.S. Patent No. 4,549,770, U.S. Patent No. 5,411,292, and US 2001/0054839 A1 for examples.

However, in existing guide loop technology there are a few problems. Many of the guide loops are not easy for some occupant demographics to use. When the seatbelt restraint system falls behind an occupants' seat, it can be difficult to retrieve. Many are  
15      difficult to re-attach and make it difficult for occupants to access the rear of the passenger compartment from the front seat area. Many times, especially in smaller vehicles, there is tight packaging of the quarter trim of the car to seat and it is extremely challenging for an occupant to reach back and retrieve his or her seatbelt. Additionally, many of the guide loop systems are expensive because of the molding used to make them. Consumers  
20      have long wanted a seatbelt restraint system that utilizes a guide loop to solve these problems.

This low mount seat guide loop solves the above-mentioned problems by providing easy use for all occupant demographics. It allows for easy re-attachment and

easy access of the rear passenger compartment while keeping costs down. It also keeps the seatbelt buckle in an improved ergonomic position. The closest known technology to this invention is a high mount guide loop, which does not present the seatbelt buckle in an ergonomic position.

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### **SUMMARY OF INVENTION**

Accordingly, to solve the above-mentioned problems, this invention relates to a low mount seat guide loop for a seat in a motor vehicle comprising a strap and a seatbelt restraint system. The strap further comprises fabric or any material generally used in the manufacturing of seats in motor vehicles and an elastic extension. This strap is positioned in a location easily accessed by both the seatbelt restraint system and by the occupant. The strap comprises a snap on one end. This snap further comprises a magnet. When the strap is extended and snapped into a predetermined location, the seatbelt restraint system is held into place. When the strap is retracted and snapped into a predetermined location the seatbelt restraint system is no longer held into place.

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### **DETAILED DESCRIPTION OF THE DRAWINGS**

FIG. 1 depicts a view of the low mount seat guide loop as it holds the seat belt restraint system.

FIG. 2 depicts a view of the low mount seat guide loop without the seat belt restraint system.

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FIG.3 depicts the low mount seat guide loop in its retracted position.

FIG. 4 depicts the low mount seat guide loop in its extended position.

FIG. 5 depicts the low mount seat guide loop with its pocket lifted revealing the elastic extension.

### **DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT**

As seen in FIG. 1, this low mount seat guide loop for a seat in a motor vehicle comprises a strap 6 and a seatbelt restraint system 4. The strap 6 is located in a position on the side of seat 2 and the side shield 10. This strap 6 comprises of fabric or any other  
5 commonly used material in seat manufacturing as well as an elastic extension 16 as seen in FIG 5. One side of strap 6 is attached to the seat 2. The strap 6 further comprises a snap 8 located on its free end. This snap 8 further comprises a magnet so that the snap 8 and strap 6 will stay close to the seat 2 and side shield 10 and will not get caught in the door of a motor vehicle (not shown). The snap has at least two predetermined locations,  
10 extended and retracted as seen in FIG. 3 and FIG. 4.

FIG. 1 depicts the strap 6 as it is used with the seatbelt restraint system 4. One end of the strap 6 is attached to the side of the seat 2 and is then tucked under a pocket  
14. The seatbelt restraint system is led under the strap 6 and the snap 8 is attached to its predetermined extended position on the side shield 10. When the seatbelt restraint  
15 system 4 utilizes this strap 6, a variety of current occupant problems are solved. The seatbelt restraint system 4 and its buckle 12 are held at a more comfortable and ergonomic position for the occupant. Additionally, if the occupant removes his or her seatbelt restraint system 4 for any reason while in the vehicle, the seatbelt restraint system 4 will remain in an easy to re-attach, easy to access position. The seatbelt  
20 restraint system 4 will not fall into the difficult to reach, tight area into the rear passenger seating area (not shown).

FIG. 3 depicts the easy to store retracted position of the strap 6 when the occupant no longer desires to use it. The strap 6 simply is tucked in the pocket 14 and snapped into its predetermined retracted position by the snap 8 on the side of the seat 2.

The strap 6 further comprises of an elastic extension 16 so as to provide a more  
5 secure fit of strap 6 over the seatbelt restraint system 4 and to ensure fit of strap 6 when  
the seat 2 is in its fully reclined position.

The above presents a description of the best mode contemplated for carrying out  
this invention. The claims should not be read as limited to the described order or  
elements unless stated to that effect. Therefore, all embodiments that come with the  
10 scope and spirit of the following claims and equivalents thereto are claimed as the  
invention.